

## REMARKS

Claims 1-11 remain pending in the instant application.

In the Office Action mailed August 31, 2005, Claims 1-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over the combined teachings of U.S. Pat. No. 3,346,529 issued to Peters, U.S. Pat. No. 3,807,703 issued to Day, U.S. Pat. No. 5,100,699 issued to Roeser, U.S. Pat. No. 3,319,937 issued to Wilson et al., U.S. Pat. No. 3,051,455 issued to Magester and U.S. Pat. No. 3,881,871 issued to Porter. The Examiner also makes a Requirement for Information under 37 C.F.R. 1.105.

### Rejections under 35 U.S.C. §103(a)

Claims 1-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the combined teachings of U.S. Pat. No. 3,346,529 issued to Peters, U.S. Pat. No. 3,807,703 issued to Day, U.S. Pat. No. 5,100,699 issued to Roeser, U.S. Pat. No. 3,319,937 issued to Wilson et al., U.S. Pat. No. 3,051,455 issued to Magester and U.S. Pat. No. 3,881,871 issued to Porter. Applicants respectfully disagree with the Examiner's contention regarding combined teachings of the cited art.

At pages 2-4, paragraph numbered 3 of the instant Office Action, the Examiner states that,

These references each relate to continuously mixing polymer reaction mixtures and the devices therefore. **The device of Day is most similar to that of the instant claims** and Day uses it to mix polyols and polyisocyanates and additives. See the figure on the cover of the patent and the entirety of the disclosure. **It however lacks the so-called throttle of the instant claims.** The baffle means of column 6, lines 29-58 meets the elements of the instant claim 11. it would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the pinch vale of the instant claim 10 on the nozzle 16 of Day because such valves are known for aiding in precision dispensing as taught by Roeser, column 3, lines 27-51 and would have been expected to give the benefits disclose by Roeser to the device of Day. Porter describes the back pressure created by such valves in similar systems and the desirability of such back pressure. This is thought by the examiner to be understood by the ordinary skilled artisan who is expected to have studied fluid dynamics and Bernoulli's principles in undergrad classes. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use **the**

**blade pitches of the instant claim 1 and 4 to 6, which are not taught by Day**, because the pitches give only predictable results relating to the back pressure described by Porter and the flow of material through the mixer described by Day when considered with the blade surface area and shape, the number of blades, and the rotational speed of the blades. No unexpected result stemming only from the blade angle is seen in a manner commensurate in scope with the cited prior art and the instant claims. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use **adjustable rotational speed for the stirrer of Day because Day implies** such when one considers the disclosure of the variety of throughput rates of column 6, lines 59-61 in combination with the disclosure of column 3, lines 52-68; Magester shows that variable dispensing rates are required and why, such dispensing rates are related to the pressure in the mixing chamber which is related to the speed of the angled blades and is predictable considering Bernoulli's principles; and Wilson et al shows that the ordinary skilled artisan knows to vary paddle, i.e., blade, speed to change foam pore size at column 4, lines 62-69. Varying throughput is most easily accomplished by varying the speed of the blades creating the flow through the mixer. Furthermore, such variable speed mixers are well known.

The above discussed mixing device would clearly be useful as the "continuous reactor" of Peters, Fig. 1 or in the alternative, the above discussed modifications that are applicable to the continuous reactor of Peters Figure 1 would have been obvious to have been made to this reactor for the same reasons as applied to the mixer of Day.  
(Emphasis added)

The highlighted portions of the above-reproduced comments by the Examiner demonstrate that although the Examiner believes that the device of Day is most similar to that of the instant claims, he concedes (1) that device of Day lacks a throttle, (2) that Day does not teach blade pitches, and (3) that Day impliedly teaches an adjustable rotational speed. The Examiner also contends that the baffle means of Day meets the elements of instant Claim 11. Applicants disagree noting that Day at col. 6, lines 51-54 states that the baffle means serves to generate eddys in the mixture, i.e., generate greater flow whereas claimed elements of instant Claim 11 are flow destroying.

Applicants point out that the instant claims are directed to a method for continuous mixing, not to the particular mixing device. Nowhere does Day teach or suggest a need for precision dispensing as the Examiner asserts would make the

inclusion of the pinch valve of Roeser obvious. Further, nowhere does Day teach or suggest adjusting the pressure in the mixing chamber by a mutually matched setting of the rotational speed of the stirrer and of the throttling effect of the throttle as in the instant invention. None of the cited art adds the missing teaching to that of Day.

Therefore, Applicants contend that nothing in the combined teachings of the cited art would lead one of ordinary skill in the art to the instantly claimed invention and respectfully request the Examiner reconsider and reverse his rejection of Claims 1-11 under 35 U.S.C. §103(a) as being unpatentable over the combined teachings of U.S. Pat. No. 3,346,529 issued to Peters, U.S. Pat. No. 3,807,703 issued to Day, U.S. Pat. No. 5,100,699 issued to Roeser, U.S. Pat. No. 3,319,937 issued to Wilson et al., U.S. Pat. No. 3,051,455 issued to Magester and U.S. Pat. No. 3,881,871 issued to Porter.

Requirement for Information under 37 C.F.R. 1.105

The Examiner makes a request for any information which the Applicants might possess regarding the instant invention,

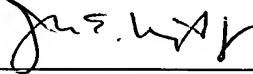
... particularly but not limited to any industrial bulletins or other information not readily available to the examiner regarding any commercially available device meeting the limitations of the device of the instant claims or relating to any components thereof such as the mixer blades, the valves of claim 10 or the flow destroying elements of claim 11.

Applicants respectfully contend that they possess no such information as that requested by the Examiner.

**CONCLUSION**

Applicants have made no claim amendments and submit that the instant application is in condition for allowance. Accordingly, reconsideration and a Notice of Allowance are respectfully requested for Claims 1-11. If the Examiner is of the opinion that the instant application is in condition for other than allowance, he is invited to contact the Applicants' attorney at the telephone number listed below, so that additional changes to the claims may be discussed.

Respectfully submitted,

By   
John E. Mrozinski, Jr.  
Attorney for Applicants  
Reg. No. 46,179

Bayer MaterialScience LLC  
100 Bayer Road  
Pittsburgh, Pennsylvania 15205-9741  
(412) 777-3024  
FACSIMILE PHONE NUMBER:  
(412) 777-3902

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